

## **Ground Fall – Inadequate Protection**

New Hampshire, Franconia Notch, Echo Crag

On August 24, at Echo Crag, Lizzy Ragan (24) fell while climbing Avalanche (5.7), a single-pitch trad route. Lizzy was reported to be comfortable leading 5.10 sport, but was new to leading traditionally protected routes.

According to her partner on the climb, "It was intended to be a nice and easy, mellow cragging day, and we were just starting our warm-up climbs." Lizzy had successfully led a nearby 5.6 trad route and had just followed Avalanche before deciding to attempt the lead.

Lizzy placed a small cam (purple Metolius 0) as her first piece and knew that she needed to place something larger. However, her foot slipped before she could get a larger piece in. As her fall loaded the small cam, the piece popped, throwing her sideways. In all, she fell about 10 to 15 feet, landing on a small set of stone stairs and sustaining massive damage to her spine. Lizzy was wearing a helmet, which may have prevented a fatal injury.

The community of climbers at the crag, several of whom had wilderness first responder and first-aid training, quickly got Lizzy stabilized and called for a rescue. She was carried out on a litter and loaded for a helicopter evacuation. She reached Dartmouth Hitchcock Medical Center within two hours of the fall.

Lizzy sustained a serious spinal cord injury to her C1–2 and T4–5 vertebrae and no longer has use of her legs. She underwent surgery to stabilize her condition and began long-term rehabilitation.

## **ANALYSIS**

Lizzy was actively training in trad climbing with qualified and experienced partners. She was leading a route that she was familiar with and within her technical ability.

Placing solid trad gear near the start of a climb is critical to avoid a ground fall. Small cams, especially in less than ideal placements, often will not hold large fall forces. In this case, the uneven terrain below the climb caused a relatively modest fall to have catastrophic consequences. Lizzy attests that, had she not placed the first piece (the one that popped under load), she perhaps would not have flipped upside down and would have hit the ground with her feet instead of injuring her spine. (Sources: Online accounts from Lizzy Ragan and Alice Chiang.)

## **Images**

## **Article Details**

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